

Title (en)

LOW-ADHESION COATINGS WITH SOLID-STATE LUBRICANTS

Title (de)

HAFTARME BESCHICHTUNGEN MIT FESTSCHMIERSTOFFEN

Title (fr)

REVÊTEMENTS À FAIBLE ADHÉRENCE AVEC LUBRIFIANTS À L'ÉTAT SOLIDE

Publication

**EP 3478786 A2 20190508 (EN)**

Application

**EP 17821312 A 20170630**

Priority

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- US 2017040153 W 20170630

Abstract (en)

[origin: WO2018005896A2] Some variations provide a low-adhesion coating comprising a continuous matrix containing a first component, a plurality of inclusions containing a second component, and a solid-state lubricant distributed within the coating, wherein one of the first component or the second component is a low-surface-energy polymer, and the other of the first component or the second component is a hygroscopic material. The solid-state lubricant may be selected from graphite, graphene, molybdenum disulfide, tungsten disulfide, hexagonal boron nitride, or poly(tetrafluoroethylene) or other fluoropolymers. The solid-state lubricant particles may be coated with a metal selected from cadmium, lead, tin, zinc, copper, nickel, or alloys containing one or more of these metals. The solid-state lubricant is typically characterized by an average particle size from about 0.1 microns to about 500 microns. The solid-state lubricant is preferably distributed throughout the coating.

IPC 8 full level

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CPC (source: EP)

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C-Set (source: EP)

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